# XVII SPECIAL PATIENT GROUPS



### ENGEL AND THE CONCEPT OF DISEASE

Modern medicine has been dominated by the biomedical model of disease, which tends to attribute to each disease a single biologic cause. George L. Engel described in 1959 an alternative perspective that recognizes that the determinants of health and disease are multifactorial with manifestations on social, psychologic, and biologic levels, best conceptualized in terms of a hierarchy of natural systems, a biopsychosocial model. The physician attempts to recognize disease and restore health to the patient at all levels. The interview and examination of the patient are an effort to identify not a single biologic defect-causing disease but "the conditions necessary and sufficient to bring about a particular constellation of signs and symptoms" (Engel 1960).

Born in 1913 in New York City, Engel graduated from Dartmouth College in 1934

and Johns Hopkins University School of Medicine in 1938. An important influence was an uncle, Emanuel Libman, a physician—scientist of international distinction, in whose house Engel lived. Libman asked the only question of James B. Herrick after listening to the uneventful address of Herrick's classic paper "Clinical Features of Sudden Obstruction of the Coronary Arteries" in 1912 (see "Herrick and Heart Disease" at the beginning of Section II). As an undergraduate, Engel began his research career at the Marine Biological Laboratory in Woods Hole, Massachusetts, where he spent two summers and wrote his first two papers. The summer after his freshman year in medical school Engel spent with his twin brother in physiologic research at the All-Union Institute of Experimental Medicine in Leningrad, the home of Pavlov's laboratories. The next summer Engel worked for Harrison Martland, a prominent pathologist in New Jersey, and participated in over 300 autopsies. Through an elective clerkship at

Boston City Hospital during medical school, Engel came under the important influence of Soma Weiss.

The first 21/2 years after graduation, Engel spent as a rotating intern at Mt. Sinai Hospital in New York City, by the end of which he had presented three papers to the New York Neurological Society and had six papers in press. The next year he spent as a fellow at Peter Bent Brigham Hospital, where he resumed work with Soma Weiss and began teaching clinical methods to medical students, which he would continue throughout his career. Engel also began work with John Romano, a psychiatrist, who was soon appointed Professor of Psychiatry at the University of Cincinnati College of Medicine, where in 1942, at age 29, Engel accepted a joint appointment in medicine and psychiatry. At Cincinnati General Hospital he worked with Eugene Ferris in medicine for 4 years, perhaps his most formative period. In 1946 he accompanied Romano to the University of Rochester as Assistant Professor of Psychiatry and Medicine with the challenge as an internist to develop teaching and research in psychosomatic medicine. Out of this emerged a broad-based program in psychosocial medicine, including a postresidency fellowship to educate nonpsychiatric physicians in the psychosocial dimensions of their disciplines. Engel became an emeritus professor in 1983 and a George L. Engel Professorship of Psychosocial Medicine was endowed in his name.

Engel has drawn attention to an important factor in sudden death, psychic stress. He attempted to "identify and classify the kinds of life circumstances and psychological reactions with which sudden death is alleged to be associated and to establish the prevalence of each association." He read newspapers to find reports of cases of sudden death, writing:

Over a six-year period we succeeded in collecting 170 such items, mostly from the Rochester press but also from newspapers here and abroad, wherever the author happened to be, as well as from interested colleagues who sent clippings. Only reports with clear reference to a precipitating life situation were used, and all instances in which suicide was even a remotely possible explanation were scrupulously excluded. Most deaths occurred within an hour of the event reported although all the victims were considered still to be reacting emotionally to the event at the moment of their demise. (Engel, 1971)

Engel found startling cases of sudden death preceded by emotional upset. The following he included as a case of "sudden death during acute grief":

A dramatic example is the death of the 27-year-old army captain who had commanded the ceremonial troops at the funeral of President Kennedy. He died ten days after the President of a "cardiac irregularity and acute congestion," according to the newspaper report of the medical findings. (Engel, 1971)

Engel classified the life settings during which sudden death may occur into the following eight categories, with the percentage distribution:

- 1. Personal danger or threat of injury (27%)
- 2. Collapse or death of close person, on impact (21%)
- 3. Acute grief, within 16 days (20%)
- 4. Threat of loss of close person (9%)
- 5. After danger is over (7%)
- 6. Loss of status or self-esteem (6%)

- 7. Reunion, triumph, happy ending (6%)
- 8. During mourning or anniversary (3%)

Engel emphasized that psychic stress may interact with other factors to induce sudden death, perhaps by initiating the chain of events leading to death. He believed that psychic stress should not be ignored as a possible contributing factor to death and disease and that precautions should be taken in care of the vulnerable patient in environments of stress, such as in the ambulance, emergency room, and intensive care unit.

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## 221 An Overview of Special Patient Groups

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Health care providers are often asked to deal with the "whole" patient; complaints that physicians and institutions fail to do so are all too common. Engel (1977) pointed out that medical science itself has failed to focus on the social and psychologic aspects of illness. In so doing, science has reduced its focus of concerns to the biologic confines of life process. The fact that patients have never subdivided their experience and expectations in this fashion makes the interface between patients and medical practice somewhat of a mismatch. Patients continue to attach individualistic and life-based experiences to their concerns.

Categorization. Labeling. Subdividing. Biomedicine proceeds, and as each new technology it employs becomes known and marketed, new expectations and concerns appear in the clinic. Environmental contaminants, AIDS, cholesterol, and prostatic ultrasound; these become the stuff of the media, common knowledge, and they become part of the concerns and questions brought to illness. Even a well-defined biologic term like allergy develops its own life as part of society's popular lexicon. Patients come to clinics using "allergy" to explain headaches, feeling tired, being depressed, losing weight, dysfunction at work, and so on. Human concerns and fears are thus clothed in the garb and language of powerful systems-science and biomedicine-and underlying difficulties at home, in relationships, and in life process masquerade in the guise of biologic dysfunction. The physician triages, sorts, and, faced with the data, tries to describe what's wrong.

Much of human concern has become the "soft data" of biologically oriented medicine. Medicine focuses on "truths" that are measurable, reproducible, and statistically validated. This becomes part of the "dogma" alluded to by Dr. Engel. These directions are driven, in part, by the overwhelming power of the scientific method. Hidden beneath the surface lie issues that tie modern medicine to the archaic past of healing traditions. Modern practitioners are faced with the same dilemmas as practitioners of earlier healing traditions, traditions that were based on blood letting, herbalism, charisma, magic, shamanism, and religion. No one wants to be blamed for a death, a bad outcome. Cause must be discovered, blame attributed or diffused, and therapy considered with care. These issues are hidden factors in the tendency of practitioners to shy away from "soft data." Scientific explanations (which have replaced blame) lack judgmental qualities and thereby have neutral, amoral meanings. Practitioners, at least, would like to think so.

There are other powerful influences coming into play. Listen to the language in vogue. Patients have become "target populations," "consumers," and are the "clients" of health care systems. Even the providers, who thought they were engaged in the art and science of medicine, are being relabeled as the "product lines" of major health care purveyors. This intrusion of business and marketing goals into the human interactions necessary in health care have further

complicated a system that was drifting far afield from psychosocial concern in dealing with patients.

The chapters that follow describe the characteristics of selected special patient populations as well as methodologies for considering and interacting with them. There is a rich literature about patients and populations as they are affected by special issues such as: alcohol or drug abuse, sexuality, contagion, developmental disorders, sensory and physical impairments, ethnicity, economics, or diseases such as diabetes, cancer, and Parkinson's disease. In fact, physicians constitute one of the populations studied, and there is evidence that they have their own special problems with health care and symptoms. What do providers do when they themselves are patients? Why? As students, physicians-tobe experience symptoms in the context of their traininginterpreting bodily sensations and developing fears in the context of presumed pathologic processes. Physician families use amniocentesis and cesarean section at rates that far exceed the general population. The reasons for this disparate physician use of preventive and predictive as well as invasive obstetric technologies are unclear. However, understanding these and similar health-seeking behaviors could add significantly to our understanding and management of the care process.

But physicians, as Kleinman (1980) has pointed out, are pragmatic. The relative good of an action or an approach to care is measured in terms of its value to the care process and under constraints of time and fiscal rewards. For example, the utility of knowing about the frequency of social disruptions in a primary care setting may be unclear to a provider who lacks the time, the resources, and/or the inclination to deal with such problems, or whose clinical methods and training, as well as payment sources, do not validate issues such as marital stress. Consider the following:

A 28-year-old woman came to a clinic after a number of brief emergency room visits that were ascribed to hyperventilation. Her history revealed an abusive husband, and violence or fright preceding the episodes. The patient had a long history of unwillingness to deal with her marital circumstances, and rejected advice as well as referrals for help. Billing for "marital problems" was disallowed by Blue Cross. A resubmission of the bill under the problem label "breathlessness" was promptly paid.

The attribution of a psychosocial cause to an episode of illness was unacceptable, and, interestingly enough, it was unacceptable to both the payer and the patient! It appeared that both found the neutral, amoral meanings of "scientific" problem description more acceptable. Imagine a planning system for medicine based on summaries of medical incidents described under these constraints. Systems develop skewed perspectives about "What's wrong?" based on programmatic and methodologic biases.

Medicine's challenge is to broaden its perspective, and to attend to a methodology that is less restrictive in assessing causalty, a methodology that validates and attends to multiple interacting issues in life process. Life process contributes to illness in ways that go beyond biomedical notions of etiology. Of necessity these life processes cross the lines of physiologic, psychologic, and social systems. As you read on, consider that medicine may need to alter its basic approaches in order to move toward an orderly, systematic inclusion of broader concerns in its day-to-day interactions with patients.

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